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Abstract

Models of education delivering content teaching through learners' second language have rapidly increased in recent decades and are thought to offer a 'naturally' motivating context for learners to use and learn the medium of instruction (MoI). However, the relationship between MoI and language learning motivation (LLM) specifically is under-explored. In light of calls for contextually responsive theorizations of LLM, this study examines interactions between English language learning motivation (ELLM) and micro (MoI classrooms) and macro (schools) contexts in Hong Kong. ELLM measures were administered to Hong Kong secondary school learners of English (N = 3854), aged 11-14, studying in English, Chinese and Mixed mode of instruction schools. ANOVA results indicate higher levels of ELLM among EMI students on most measures and effects of MoI on three LLM constructs. The results support the relevance of a required orientation in explaining participants' ELLM and challenge the applicability of the ideal L2 self, which may be attributable to context rather than cultural difference. Implications are discussed for existing understandings of the MoI-LLM relationship, as well as discussions around culturally relevant theorizations of LLM.

1. Background

Recent decades have witnessed increased spread of educational models delivering content teaching through learners' second language (del Pilar and Mayo, 2015). Variations include the Canadian immersion programs, Content and Language Integrated Learning (CLIL) in parts of Europe and bilingual programs in the United States. For the purposes of this paper, we term these models 'Content-Based Instruction' (CBI). Such programmes have been promoted in the belief that content instruction through the target language medium creates a naturally motivating context for language learning and language use, facilitating both their learning of 'subject knowledge and competencies as well as skills and competencies in the foreign language' (Georgiou 2012: 495; Pérez Cañado 2017). The specific relationship between medium of instruction (MoI) and language learning motivation (LLM), crucial in sustaining learners' efforts towards successful learning of language and content, is a relatively under-explored but important area. This paper seeks to provide an empirical contribution towards addressing this gap, by disseminating concrete results obtained from a specific sample of a clearly identified milieu of schools and students, from which sample, data has been gathered through established methodologies in the field of LLM, at a specific moment in time. Rooted in the basic tenets of the discipline and the many previous studies examining general motivation, from previous generations of applied linguists and educationalists to whom it is indebted, this study specifically focuses on ELLM in the MoI context, examining empirical data drawing implications for future research and practice.

Focusing on the MoI and ELLM relationship echoes calls for LLM theorization to better account for context in order to generate insights into the process of motivated language learning, a key predictor of language learning success (Bernaus and Gardner 2008; Du and Jackson, 2018; Liu and Thompson, 2018). It also draws attention to the role of cultural processes in learners' motivated language learning (Ushioda 2009), where previous research has highlighted cultural variations in motivation suggests between for instance 'independent cultures', such as the United States, (Deci and Ryan 2002; Ginsburg and Bronstein 1993) and 'interdependent societies', such

as Taiwan (d'Ailly 2003). Enriching our understanding of the interplay between MoI and LLM as mediated by cultural contexts, the present study examined the interactions between MoI and ELLM within Hong Kong.

In comparison with other cultural contexts, Hong Kong is a unique Chinese context, with considerable non-Chinese influences and schools adopting a variety of MoI policies. As a former British colony reverting to Chinese rule, Hong Kong has three main categories of MoI operating within its secondary schools: English medium of instruction (EMI), Chinese medium of instruction (CMI) or mixed medium of instruction (MMI). During the period following the 1997 handover, MoI policy in Hong Kong shifted from heavily EMI to heavily CMI. Due mainly to political pressures (see Tsui (2004) and Tollefson and Tsui (2014) for a detailed discussion), but also the pragmatic need for English for accessing higher education and the competitive job market, the *fine-tuning policy* was implemented in 2010, allowing schools some flexibility to adapt MoI policy according to needs and resources. The fine-tuning policy allows CMI schools to deliver up to 25% of the curriculum through the medium of English, assuming they provide evidence to the Education Bureau that their students have the academic ability to learn through English. Such schools are referred to as *mixed medium instruction*, MMI. Since both English and Chinese are associated with strong sociopolitical and socioeconomic values, identities, histories and cultures, which continue to significantly interact with and shape Hong Kong society, Hong Kong offers a uniquely interesting context of study in response to calls for research that acknowledges the contextual and social nature of LLM.

2. Literature Review

2.1 Medium of instruction and Motivation

Issues relating to LLM are central to effective CBI. CBI has been said to lead to increased LLM on the basis that there is an immediate need for students to understand the L2 in order to effectively engage with content subjects, thus authenticating the language learning experience (Genesee 1991; Pérez Cañado, 2017; Swain and Lapkin 2005). Jiang et al. (2016) found that, in the context of the recent growth of EMI delivery in Mainland China, studying through EMI motivated Chinese students to pursue further ESP instruction. Huang (2015) also reported positive effects of EMI on student LLM, though it is unclear how motivation was conceptualized or indeed measured. Yet, the available research evidence on the motivational impact of CBI models is limited and unclear. University students participating in Evans and Morrison's (2011) study reported little need or desire to use English outside the classroom in universities using English as MOI. Though the researchers did not explicitly link this to LLM, such studies challenge assumptions and raise important questions about learners' LLM in the context of CBI.

Studies examining motivation in the context of CBI have rarely applied LLM specific frameworks. Thus, while LLM theories have increasingly made room for the role context in shaping LLM, this has not yet translated into empirical studies of the interaction between MoI and LLM. Heras and Lasagabaster's (2015) study is a notable exception. The authors argue that while 'nobody would question the importance of attaining a good standard of English and the need to achieve this within the education system' (p.70), nevertheless 'FLL and English as a foreign language (EFL) have traditionally shown unsatisfactory results in many formal education settings worldwide', pointing to a need to better understand the interaction between CBI and LLM and perhaps even to the need to review existing models of language education in order to find more effective ones on the basis of such understanding. Heras and Lasagabaster (2015) examined interactions between CLIL and motivation conceptualized through the L2 self-system. While the

CLIL context seemed to mitigate gender differences in LLM, it did not show any motivational advantage over a non-CLIL context. Lasagabaster and Doiz (2015), provides further important evidence questioning the notion that contexts such as CLIL provide ‘naturally’ motivating conditions for language learning. The longitudinal study examined the ELLM of secondary school learners of English in the Basque Country of Spain. Comparing CLIL and non-CLIL contexts, the results challenge previous findings of a motivational decline in non-CLIL settings and suggest that while content-subject learning motivation was maintained in CLIL classrooms, these settings did not have a long-term positive effect on learners’ ELLM; instead, by the end of the study, non-CLIL and CLIL students displayed similar levels of ELLM.

In Hong Kong, few studies have examined motivation for content learning (e.g. Fung and Yip 2014) and only a handful of studies have considered the effects of CBI on English learning motivation, across EMI and CMI schools. Salili and Lai (2003), for instance, found that EMI students exhibited higher levels of motivation than their CMI peers. Motivation was conceptualised through the expectancy-values theories framework, typically applied to general academic motivation. The findings were supported also by the Education Bureau (2004, 2006) that found significantly higher levels of interest in English learning among EMI than CMI students. In a large-scale, longitudinal study, Salili and Tsui (2005) applied the same framework to investigate academic motivation among students in CMI and EMI schools. They found significantly more positive attitudes towards learning English among EMI students in the first two years of the study, perhaps explained by students’ perceived immediate need for English in order to effectively engage in other school subjects in EMI school. It is also possible that an association exists between the prestige attributed to EMI schooling and the motivational value of learning English (Dallinger et al. 2016; Pérez Cañado 2017).

Notwithstanding the above findings on motivation, most of the referenced studies have focused primarily on attainment, with academic motivation as a secondary interest and LLM receiving even less attention. Studies on interactions between MoI and LLM are surprisingly rare and those that exist tend to adopt broad academic motivation frameworks or surface versus deep level motivation, also termed extrinsic and intrinsic motivation. Language learners have thus been dichotomised as motivated/unmotivated or less motivated/more motivated. The application of general academic motivation constructs to investigations of LLM fails to tap into the specific nature of language and of language learning, for instance as it relates to human interaction with a community and the place of language proficiency in society. LLM specific models represent the processes inherent to language learning and the ways these processes interact with social context (Gardner 2010) and with the learner’s psychological traits (Dörnyei 2009).

Given the significance of LLM in language attainment, it is important to understand the nature of interactions between MoI and LLM. In light of this, the present study addresses an existing gap in the literature on CBI, by examining the interactions between MoI and ELLM, applying theoretical frameworks that can adequately account for the nature of language learning.

2.2 Theoretical frameworks for LLM

Theorizations of LLM emphasise the individual and the role of context in shaping LLM, including Gardner’s Socio-educational Model and Dörnyei’s L2 Motivational Self System. At the heart of Gardner’s model is the idea that attitudes towards the L2 and its speakers influence learners’ motivation and in turn their language learning success (Dörnyei and Ushioda 2009). Gardner and Lambert (1972) proposed that L2 learners may learn the L2 for the purposes of attaining membership of the L2 speaking community (i.e. *integrative orientation*) (Shaaban and Gaith 2000).

This was contrasted with the *instrumental orientation*, representing pragmatic reasons for L2 learning, for instance social recognition or economic advantages. The instrumental orientation has typically been considered external to the individual's personality and, therefore, a less powerful influence (Skehan 1989).

Dörnyei's (2005) L2 self-system model extends the possible self theory originally proposed by Markus and Nurius (1986), to the language learning context, reinterpreting the future self construct to apply to L2 learning situations. The L2 motivational self-system is comprised of three core components: the ideal L2 self, which is the L2-specific facet of the ideal self and a powerful motivator as learners desire to reduce the discrepancy between their actual self and their ideal self; the ought-to L2 self, referring to the L2 related attributes the learner believes they ought to possess in order to meet external expectations or avoid negative outcomes; and the L2 learning experience, concerning the motivational impact of the learning environment. Of the three constructs, the ideal L2 self has attracted particular attention, with numerous studies supporting the notion that a strong ideal L2 self acts as a powerful motivator (Csizér and Lukács 2010; Henry 2009; Irie and Brewster 2013; Kim 2012), as well as being positively associated with proficiency development (You and Chan 2015; Nitta and Baba 2015). The ought-to L2 self has received less attention, not least due to problems with establishing the reliability of the scale's items (Csizér and Lukács 2010; Kormos and Csizér 2008; Lamb 2012). Despite evidence of the transferability of these frameworks across contexts, evidence also suggests that these motivational constructs may apply differently across sociocultural settings.

2.3 Motivation and the sociocultural context

Social cognition theories focusing on self-construal distinguish between *independent* and *interdependent* cultures. Independent cultures are characterized by a normative imperative to establish independence from others and to discover and then express one's uniqueness (Shweder and Bourne 1984; Johnson 1985; Miller 1984). The individual is one whose behavior is organized and given meaning by reference primarily to one's own internal repertoire of feelings, thoughts and actions, rather than those of others. Notwithstanding the variations that exist within every culture, many non-western societies are seen to centre instead on a core of human connectedness, emphasising the preservation of interdependence between individuals (Hernandez and Iyengar 2001). In such societies, the self is considered more connected to and less differentiated from others, who participate more directly and actively in the ongoing definition of the interdependent self. East Asian societies are typically considered interdependent.

Primary significance in such cultures is given to group expectations and needs, with individual autonomy being a secondary consideration (Markus and Kitayama 1991). In interdependent societies the 'other' plays a key role in the definition of the self, which focuses on the relationships between the self and others. The goals of others are promoted above those of the individual. In Chinese heritage societies, for instance, a perceived reification of knowledge and learning is seen to interact with the view of the self, exerting a driving force that emphasizes the importance of learning for collective success and family honour (Ng 2003). Evidence from Hong Kong, for instance, points to a positive relationship between extrinsic motivation and academic achievement (Moneta and Siu 2002). While Moneta and Siu (2002) interpreted this to mean that the college environment was failing to promote intrinsic motivation, it is also possible that some forms of extrinsic motivation may more effectively capture the role of the 'other' in motivational trajectories, rendering them more relevant to the lived reality of societies such as Hong Kong.

Self-construal variations have potential motivational implications. While independent-selves may be motivated by opportunities to foster personal agency, enabling the individual to respond to opportunities that allow them to be the sole initiator of their behaviours (Markus and Kitayama 1991), interdependent-selves strive for harmony and a sense of belonging with others and are therefore motivated by opportunities that allow them to act collectively and be perceived as a collective agent, or a group member (Hernandez and Iyengar 2001). This latter self-construal assumes motivational orientations rooted in the family or society. Thus, differences in self-construal would have implications not only for conceptualisations of intrinsic and extrinsic motivations, but also for the relevance of the ideal and ought-to selves across cultural settings.

In interdependent Asian societies, such as Taiwan and Hong Kong, where learning and achievement are considered social obligations, the *required orientation* has been thought to capture the idea that social recognition and the honour and credit this brings to the family are tied to meeting requirements particularly in the form of exam success (Ng 2003). Warden and Lin (2000) found Taiwanese EFL students were motivated by such requirements, rather than by either integrative or instrumental interests, calling to question the relevance of existing frameworks for explaining LLM in that context and lending support to the relevance instead of the required orientation. Chen, Warden and Chang (2005) also found little evidence to support a significant role of an integrative orientation or of the ideal L2 self, again finding the required orientation to provide a better explanation. Yet, You and Dörnyei's recent study (2016) challenges such findings, arguing instead for the ideal L2 self as the most valid and potent motivator for their Chinese participants. Although contextual differences were not directly addressed in this study, it is possible that sociocultural differences between Mainland China and Taiwan may help to explain such differences. Indeed, as You and Dörnyei (2016) highlight, also highlights 'when English is directly associated with their children's future career, parents take an increasing interest in good results than when English is just a background subject' (p. 512), obliging children to respond in their learning efforts. Thus, learning contexts profoundly mediate language learners' motivational characteristics (e.g. Chen et al. 2005; Dallinger et al. 2016).

Ng (2003) suggests that motivational differences associated with some East Asian societies can be attributed to a combination of interdependence and school and home practices, whereby messages such as '*learning cannot be separated from achievement*' and '*learning and achievement are social obligations*' are passed down through generations and have become central to the Asian view of learning. Such contexts are seen to encourage forms of motivation typically seen as extrinsic, centering primarily on fulfilling the expectations of others and avoiding negative consequences for one's significant others. Chen, Warden and Chang (2005) also argued for understanding participants in the context of the social structures within which they operate. Studies have found, for instance, that while the ideal L2 self and the ought-to L2 self typically correlate with instrumental promotion and prevention respectively, among Chinese students promotion and prevention were present both in the ideal and in the ought-to L2 selves, suggesting that learners may have internalized the expectations and values of society and significant others (Chen 2012; Huang et al. 2015) and again pointing to cultural variation in motivation.

2.4 Research questions

In light of the existing gap on the interactions between MoI and LLM, this study applies theoretical frameworks specific to the nature of language learning and examine the relevance of these theoretical frameworks for explaining LLM across sociocultural contexts. It addresses the following research questions:

1. How can the ELLM of Hong Kong secondary school English learners' be accounted for?
2. What is the nature of the relationship between MoI and ELLM in the Hong Kong secondary school context?

3. Methodology

3.1 Participants

Participants in the study were Hong Kong secondary school students, in grades 1 (N = 1350), 3 (N = 1245) and 4 (N = 1259) recruited through purposive, stratified sampling. Sample statistics are shown in table 1. A total of 3854 students participated in the study, (M = 1340, F = 2196, Undeclared = 318). All schools were Subsidized Schools, meaning that they were schools required to follow the curriculum laid down by the Government. These schools account for the majority of Hong Kong's secondary school population. Students were distributed across eleven schools: four EMI (N = 1780), five MMI (N = 1637) and 2 CMI (N = 437). Due to a lack of available systematic SES data, SES was determined according to school location and in consultation with teachers at the schools. Low (N = 1440), middle (N = 1875) and high (N = 539) SES were represented across the participants.

Due to the complexity of the linguistic landscape outlined in the introduction and the lack of official classification, school MoI was determined on the basis of the school's own description as provided to the researchers, the school's website and data available through school and Education Bureau (EDB) online sources designed for parents and required to adhere to legal obligations for accuracy of information thereby presented. For the purposes of the present study, EMI schools are those claiming to use English as MoI across all subject areas, with the exception of Chinese lessons. These schools also used textbooks and teaching materials in English. CMI schools are those that claim to deliver all curriculum subjects, except English language, through Chinese. These schools used a combination of English and Chinese teaching materials and textbooks. MMI schools are those reporting to deliver the curriculum primarily through Chinese, but where selected subjects, namely Mathematics and Science, as well as English, are taught through EMI. These descriptions align with EDB guidelines on MoI implementation. Nevertheless, while our lesson observations supported the schools' MoI claims, language practices in CBI contexts are rarely rigid, but instead are likely to be fluid and flexible both within and across lessons.

3.2 Questionnaire

There is a strong precedent for the use of questionnaires for examining motivation, both in the field of Psychology and in studies of LLM (e.g. Gardner and Tremblay 1994; Chen, Warden and Chang 2005; Dörnyei 2006; Bernaus and Gardner 2008). Notwithstanding the need for qualitative approaches to LLM (Ushioda 2001), as the first of such studies available in Hong Kong, quantitative methods were chosen in order to generate a broad picture of Hong Kong secondary school learners' ELLM, to be further explored through subsequent qualitative studies.

The questionnaire consisted of scales examining a range of ELLM constructs (see table 1). These were developed on the basis of previous literature, specifically Dörnyei (2010), Gardner (2010), Guilleaume and Dörnyei (2008) and Chen, Warden and Chang (2005). Although these studies had established the reliability of the scales, given the different socio-economic context of the study and the fact that most previous studies had focused on adult learners, the tests were re-

tested in the present study. Cronbach alpha coefficients indicated acceptable reliability for all scales (See table 1).

Table 1: Reliability scores for the questionnaire scales

Construct	No. of Items	Reliability (Cronbach's alpha)
Integrative Orientation	4	.79
Instrumentality – Promotion	4	.79
Instrumentality – Prevention	5	.89
Ideal L2 Self	4	.83
Ought-To L2 Self	4	.83
Family influence	5	.84
Cultural Interest	2	.81
Attitudes toward Learning English	3	.92
Required Orientation	3	.81

As can be seen in table 1, the questionnaire comprised the following scales (sample items are included in the appendix):

Integrative orientation- explored disposition towards the target language speaking group, desire to communicate with them, to understand and participate in their culture and the extent to which this is considered a significant reason to learn English.

Instrumental Orientation (Promotion)- focused on potential pragmatic gains of English language learning, for instance in terms of future career opportunities and perceived social status.

Instrumental Orientation (Prevention)- explored the extent to which learners are driven to learn English language by a fear of failing or being perceived to fail.

Ideal L2 Self- focused on the projected language learner and the extent to which English language learning or use play a part in this ideal self.

Ought-to L2 self- examined the role of societal or significant others' expectations in motivating English language learning.

Family influence- based on Gardner's work on the role of parental encouragement, items reflected understandings of the role of family in the Hong Kong socio-cultural context.

Cultural Interest- tapped into participants' interest in English language music and television, as driver for language learning.

Attitudes towards learning English- addressed participants' interest in learning English and their perceptions of their English classes.

Required Orientation- based on the work of Chen, Warden and Chang's (2005) proposed construct for tapping into Confucian-heritage learners' LLM, items refer to the need to fulfill certain requirements in order to pass required classes.

The questionnaire was examined by three bilingual English and Chinese speakers, forming a bilingual panel and was piloted with students closely reflecting the target population. Students responded to questionnaire items on a four-point Likert scale. The final version of the questionnaire was distributed in bilingual form across all participating schools, at the beginning of the academic year, enabling students to respond to items in the language they felt most comfortable in.

3.3 Analysis

Descriptive analysis allowed observation of patterns and trends, while inferential analysis focused on relationships between variables. In order to address research question one, a Multiple Analysis of Variance (MANOVA) was examined the existence of significant differences in ELLM across MoI settings. This was followed by univariate ANOVAs to ascertain the specific LLM constructs that differed across the settings and the proportion of the variance explained by MoI. Our other research questions were concerned with the nature of Hong Kong secondary school English learners' ELLM and the extent to which it can be said to reflect existing LLM frameworks. Following descriptive analysis, repeated measures Analysis of Variance (ANOVA) was conducted on the motivation scales as a means of ascertaining the relative degree to which students responded to the diverse ELLM constructs.

4. Results

The first research question sought to understand the nature of ELLM among Hong Kong secondary school learners of English. The initial descriptive analysis shown in table 2 revealed the highest scores across the total sample were for *instrumentality promotion* (3.27), followed by *required orientation* (3.24)

A repeated ANOVA, with a Greenhouse-Geisser correction ($\epsilon = .75$), determined that a significant difference between ELLM constructs, $F(6.75, 39918.18) = 1815.3, p < .001$. Post hoc tests, using a Bonferroni correction revealed the required orientation ($3.24 \pm .68$) and instrumental promotion orientation ($3.27 \pm .57$) to be significantly higher than all other orientations across the MoI settings.

Table 2: Mean scores on Motivational scales across Medium of instruction

	MOI	Mean	S.D.	N	Contrast	Mean Difference	Sig.
Integrative Orientation	EMI	3.13	.55	1653	EMI/MMI	.13	.00
	MMI	3.01	.62	1516	EMI/CMI	.18	.00

	CMI	2.95	.66	409	MMI/CMI	.05	.30
	Total	3.06	.60	3578			
Instrumentality – Promotion	EMI	3.33	.55	1653	EMI/MMI	.11	.00
	MMI	3.22	.59	1516	EMI/CMI	.12	.00
	CMI	3.21	.61	409	MMI/CMI	.01	.95
	Total	3.27	.57	3578			
Instrumentality – Prevention	EMI	2.98	.66	1653	EMI/MMI	.07	.02
	MMI	2.91	.69	1516	EMI/CMI	.14	.00
	CMI	2.84	.69	409	MMI/CMI	.08	.13
	Total	2.93	.68	3578			
Ideal L2 Self	EMI	2.96	.66	1653	EMI/MMI	.15	.00
	MMI	2.81	.74	1516	EMI/CMI	.15	.00
	CMI	2.81	.78	409	MMI/CMI	-.00	.10
	Total	2.88	.71	3578			
Ought-To L2 Self	EMI	2.79	.62	1653	EMI/MMI	.10	.00
	MMI	2.69	.67	1516	EMI/CMI	.05	.34
	CMI	2.74	.65	409	MMI/CMI	-.05	.44
	Total	2.74	.66	3578			
Family Influence	EMI	2.37	.66	1653	EMI/MMI	-.02	.79
	MMI	2.39	.68	1516	EMI/CMI	-.08	.10
	CMI	2.45	.69	409	MMI/CMI	-.06	.23
	Total	2.39	.67	3578			
Cultural Interest	EMI	2.89	.79	1653	EMI/MMI	.15	.00
	MMI	2.74	.85	1516	EMI/CMI	.13	.00
	CMI	2.76	.86	409	MMI/CMI	-.02	.89
	Total	2.81	.83	3578			

Attitudes toward Learning English	EMI	2.64	.76	1653	EMI/MMI	.08	.02
	MMI	2.57	.80	1516	EMI/CMI	-.05	.46
	CMI	2.70	.84	409	MMI/CMI	-.13	.01
	Total	2.62	.79	3578			
Required Orientation	EMI	3.37	.59	1653	EMI/MMI	.24	.00
	MMI	3.14	.71	1516	EMI/CMI	.33	.00
	CMI	3.05	.75	409	MMI/CMI	.09	.07
	Total	3.24	.68	3578			

Our second research question concerned the nature of the interaction between MoI and Hong Kong secondary school English learners' ELLM. This research question was addressed by means of an analysis of variance (ANOVA), allowing for exploration of the differences between the ELLM constructs, across MoI. Descriptive statistics (see table 2) were first generated for each of the ELLM scales across the three conditions. The statistics, shown in table three, indicate similar motivational profiles across the three MoI, with the exception that EMI students scored most highly on the required orientation (3.37), followed by the instrumental promotion orientation (3.33), while the reverse was true for MMI and CMI students. This is not surprising in that it reflects the reality that EMI students do have greater English language expectations imposed on them on which their progression through school depends. It does, however, support the idea that LLM is responsive to contextual features. The fact that the required and instrumental promotion orientations were the highest scales across the MoI settings, even though MMI and CMI learners do not experience the same English language requirements at school, arguably points to the influence on certain ELLM constructs of the wider sociocultural context of Hong Kong that goes beyond MoI.

A multiple analysis of variance, using Pillai's trace, indicated a significant effect of MoI on ELLM, $V = 0.68$, $F(20, 7134) = 12.626$, $p < .01$. Follow up univariate ANOVAs were conducted to examine the effect of MoI on motivational outcomes (See table 3). After initial screening of the data, a stricter alpha level of $p < .01$ was employed for interpreting the results of further ANOVAs (Allen and Bennett, 2008).

Table 3: ANOVA results across all LLM constructs between MoI groups

	df	Mean Square	F	η^2	Sig.
Integrative Orientation	2	8.88	25.46	.014	.000
Instrumentality – Promotion	2	5.54	16.97	.009	.000
Instrumentality – Prevention	2	3.96	8.70	.005	.000
Ideal L2 Self	2	9.91	19.79	.011	.000
Ought-To L2 Self	2	3.96	9.35	.005	.000
Family Influence	2	1.01	2.24	.008	.106
Cultural Interest	2	9.67	14.29	.008	.000

Attitudes toward Learning English	2	3.84	6.24	.003	.002
Required Orientation	2	30.47	69.47	.037	.000

The results, displayed in table three, point to a significant effect of MoI on all motivation outcomes for these students, but given the large sample size, effect sizes, represented by η^2 in table 3 are considered a more meaningful indicator. In this case, applying Cohen's (1988), gauge of effect sizes (in this case, F), 0.01 = small effect, 0.06 = medium effect and 0.14 = large effect, the findings indicated a small effect of MoI on integrative orientation, ideal L2 self and required orientation. All other effect sizes were found to be negligible.

Post-hoc analysis examined contrasts between the MoIs on each of the constructs. For ease of reading we do not refer to all significant differences here, but all relevant statistics are presented in table 2. The results indicated that the only significant difference between MMI and CMI learners was on attitudes towards learning English, with CMI students showing more positive attitudes ($2.7 \pm .84, p = .01$). Both MMI and CMI differed significantly from their EMI counterparts on almost all motivation constructs (see table 4 for ease of reading). EMI students scored significantly more highly than CMI and MMI learners on most motivation measures. However, while the differences found between MoI groups in the present study were significant, the effect size was in fact negligible for all except three constructs, suggesting that MoI explains only a small proportion of the variance between groups. Small effect sizes were found for integrative orientation, ideal L2 self and required orientation.

5. Discussion

Our study examined interactions between MOI and ELLM in a variety of MOI settings in Hong Kong, acknowledging the crucial role of context in shaping LLM (Ushioda 2009; Norton 2001). Previous studies seeking to understand the nature of the interaction between MoI and LLM have typically drawn on academic motivation frameworks (Lo & Lo, 2014), rather than on those best suited to account for the nature of LLM. Understanding the relationship between ELLM specifically and MoI makes a unique contribution to the theorization of LLM, contributing to the ongoing discussion about the role of context in shaping LLM.

It was not surprising to find that EMI learners exhibited higher motivations for learning English than their CMI and MMI peers. At a difference with the findings of Lasagbaaster and Doiz (2015), the findings of the present study align with others that have found in favour of EMI on affective outcomes (e.g. Salili and Lai 2003; Lo and Lo 2014), pointing to an effect of MoI on ELLM. To some extent the findings support the notion that EMI schooling is a naturally motivating context for learning English, as seen by the fact that EMI students scored most highly on the required orientation. Nevertheless, it is also important to note that this orientation was significantly higher than others also in the CMI and MMI settings, added to which the instrumental promotion orientation of students across the three MoI settings emerged as significantly higher than other motivation orientations. These findings suggest an influence of macro-contextual features that go beyond MoI, questioning claims that CBI is in and of itself a naturally motivating environment (Swain and Lapkin 2005). Indeed, this interpretation would go some way to explain the contrast between our findings and those of Lasagabaster and Doiz (2015), given the difference in the sociolinguistic contexts of the Basque Country and Hong Kong, specifically in relation to the role of English. Such findings point to the need for more nuanced understandings of the extent to which the relationship between MoI and LLM may be mediated by historical, political, social, and

individual factors. A case study approach, for example, examining the distinguishing features of the MoI settings beyond simply the language medium, would be an important step in generating a richer understanding of the nature of LLM across these settings. A further fruitful line of enquiry might be closer investigation of learners' home contexts. It may be, for instance, that those whose parents send them to EMI schools are also providing access to English language through other forms, thus generating opportunities for exposure and familiarisation.

In recognition of the importance of context, a secondary focus of our study was to embark on understanding Hong Kong secondary school English language learners' ELLM. Here the study sought to contribute empirically to existing knowledge of LLM across sociocultural contexts, for which Hong Kong was seen to provide uniquely interesting and valuable insights.

Data from the present study reflects the findings of Chen, Warden and Chang (2005) who also found that instrumental and required orientations best explained the LLM of Chinese learners in Taiwan. Our study sought to explore the appropriateness of existing theoretical constructs in accounting for ELLM in this interdependent society, thus contributing to the ongoing debate on the transferability of theories across sociocultural contexts. Two possible interpretations emerge from our findings. The first aligns with Chen, Warden and Chang (2005), who argued in favour of a culturally distinct notion of LLM acknowledging the role of significant others' expectations. They posit that Chinese culture promotes the notion that personal dreams are fulfilled by excelling in the traditional structures of Chinese society such as filial piety, respect for teachers and excellence in examinations. It may be that these values of Chinese society interweave to form a basic foundation for students' LLM and a means of fulfillment of their individual identity within their cultural milieu. Learners' self-actualization may be intrinsically tied to successfully obtaining the pragmatic outcomes of language learning and meeting social and systemic requirements. In this sense, if pragmatic gains and meeting external requirements are a means to attaining social approval and bringing credit to the family in interdependent societies (Ng 2003), the prevalence of the instrumental promotion and required orientations in Hong Kong could be interpreted as pointing to the motivational influence of social interconnectedness rather than individual self-realisation. Previous studies have pointed to the importance of extrinsic motivation in interdependent contexts (e.g. Ryan and Deci 2000; Amabile et al. 1994), such as Taiwan (d'Ailly 2003) or Hong Kong (Moneta and Siu 2002). The present study also suggests that Hong Kong students identify more strongly with sources of motivation typically considered extrinsic, namely the instrumental promotion and required orientations, but which, might in fact be viewed as intrinsic in the context of a Chinese emphasis on filial piety and excellence in examinations as a means to personal fulfillment. It may be that individuals across cultural contexts are motivated by the same goal of self-fulfillment but that the means through which that is achieved differs according to the self-construal and the role and position of the 'other' in relation to the self. Exploring these particular aspects across sociocultural contexts would constitute a meaningful contribution to the theorization of LLM.

While our study provides evidence that could ostensibly be seen to support calls for cultural variations in LLM theorisations, we would apply caution in interpreting our own findings as such, bearing in mind that the mean scores on the family influence and ought-to L2 self scales meant to represent learners' desire to meet the expectations of significant others, were relatively low, at 2.40 and 2.73 respectively. These low scores suggest that, at a conscious level, students felt these factors were only moderately significant in motivating them to learn English. An alternative interpretation of the findings points to the highly contextual nature of LLM and aligns more closely with Ushioda's (2009) person-in-context relational view of LLM. It is true that the required orientation

was high across all the MoI settings. However, it is also possible that these findings are indicative of the significant gatekeeping role that English plays in the Hong Kong context, rather than of an intrinsic cultural feature. In Hong Kong, where access to higher education and eventually to the more lucrative areas of the labour market necessitates English language skills, the prevalence of the instrumental promotion and the required orientation may be indicative of the contextual nature of learners' ELLM. We would argue that this interpretation is more faithful to the findings, given the observations made in regard to the family influence and ought-to L2 self scales that did not support the notion of a significant role of social and familial expectations as important motivators among the participants. Our findings are suggestive of a rich and multi-faceted LLM tapestry among these students, who were the product of a unique civilization at a crossroads between Eastern culture and international context, in the 21st century.

6. Conclusion

The rapid growth of CBI models has been primarily on the basis of economic and political considerations; little is known about the effectiveness of such models and even less about their impact on LLM. Given the importance of LLM in language learning success, further research is essential in ensuring both the effective delivery of CBI and equitable educational opportunities for all learners. These areas of investigation might go some way to explaining the significant differences among learners across these MoI settings. Such research would allow for examining the extent to which differences in LLM are culturally constituted, contextually responsive or, perhaps most likely, an interaction of the two.

This study adds to the understanding of the interactions between context and LLM, at a micro and macro level through the lens of MoI and sociocultural context respectively. It can be contended that a uniquely important contribution of this study is the application of theoretical frameworks specific to LLM for understanding the relationship between MoI and ELLM. In the context of previous studies, the approach adopted here has allowed for differentiation between motivational constructs, leading to a richer understanding of ELLM in the context of MoI and insights for the theorization of LLM. The findings revealed differential interactions between MoI and the diverse ELLM constructs, suggesting that some are more susceptible to the effects of MoI than others and pointing to a nuanced interaction between different aspects of ELLM and learners' micro context. This study points to the need for further research on the interactions between LLM and MoI, that would allow for a fine-grained understanding of their multi-faceted relationship as a means of informing further development of theoretical modeling of LLM that accounts for micro and macro contexts.

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Appendix: Sample questionnaire items for each ELLM construct

Students were asked to indicate how important the following reasons for learning English were to them:

Constructs	Items
Integrative Orientation	To be more at ease communicating with other people who speak English.
	So I can meet and converse with more and varied people.
	To better understand and appreciate art and literature in English.
	So I can participate in cultural activities through English.
Instrumentality – Promotion	Because English proficiency is necessary for being promoted in the future.
	Because I think it will be useful in getting a good job.
	Because high English proficiency will let me make a lot of money.
Instrumentality – Prevention	Because I do not want to fail the English course.
	Because I do not want to get a poor score or a fail mark in English proficiency tests.
	Because I would feel ashamed if I got bad grades in English.
	Because, if I do not have knowledge of English, I will be considered a weak learner.
Ought-To L2 Self	In order to gain the approval of others (e.g., my peers/ teachers/ family).
	I consider learning English important because the people I respect think that I should do it.
	Because my parents/family believe(s) that I must study English to be an educated person.
	In order to bring honour to my family.
	Being successful in English is important to me so that I can please my parents/relatives.
Cultural Interest	Because I like the music of English-speaking countries (e.g., pop music).
	Because I like English-language films, TV or radio programmes in English.
Required Orientation	To help me pass required classes (e.g., English language, Maths and Liberal Studies).
	To help me pass elective classes (e.g., Chemistry, Geography, Economics, etc.)

They were also asked to indicate how true the following were for them:

Ideal L2 Self	I can imagine myself living abroad and having a discussion in English.
	Whenever I think of my future career, I imagine myself using English.
	I can imagine myself speaking English with international friends or colleagues.
Attitudes toward Learning English	I like the atmosphere of my English classes.
	I always look forward to English classes.
	I find learning English interesting.